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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,253	09/14/2000	Thomas P. Szumla	80708N-R	1048

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EXAMINER	
NGUYEN, MADELEINE ANH VINH	
ART UNIT	**PAPER NUMBER**
2626	4

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/662,253	SZUMLA ET AL.	
	Examiner	Art Unit	
	Madeleine AV Nguyen	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-23 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-23 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 8-11, 13, 18-21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda (US Patent No. 6,081,347).

Concerning claim 1, Yasuda discloses an image processor (Fig.2) generating image output for a printer from image data received from an image source (217 or local/remote external unit) comprising a first processor system (206) having a first bus (bus connecting the processing system 206 to scanner interface 218) for communication with the image source 217, the first processor system further characterized by providing high-level control of the image processing performed within the image processor; and a second processor system (205) in circuit communication with the first processor system 206 and having a second bus (bus connecting the processor system 206 with scanner interface 218) for communication with the image source, the second processor system receiving image data from the image source via the second.

Yasuda does not directly teach that the second processor system 205 performs a majority of the image processing performed within the image processor responsive to control by the first processor system 206. However, Yasuda teaches that "A raster image processor (RIP) 205 ... generates a bit-map image in accordance with contents of the command in order to output the

image to a high-speed image bus." (col. 4, lines 57-64) and "an image processing unit 206 performs a filtering process such as smoothing and edging to an image inputted from the high-speed image bus and performs character recognition process and an image separation process for separating character part and image part." (col. 4, line 65 – col. 5, line 3). Thus, the second processor system 205 performs a majority of the image processing since it receives the image data, processes it and outputs it to the communication lines or to the printer. In addition, Yasuda teaches "In the photocopiers 108-110, each CPU 201 has obtained, from the RIP 205, information on what types of pate-description languages can be processed ..." (col. 6, lines 59-66), and "The photocopier 108, which has received the LIPS code, transfers the LIPS code to the RIP 205, in which the transferred code is bit-mapped. Successively, the photocopier 108 transfers the bit-map data to the printer 219 via the printer interface 220 to output an image formed on a recording medium like recording paper." (col. 7, lines 62-67), and "the job server 107 has determined that the image which has been once bit-mapped from the PS code received by the RIP 205 of the photocopier 108 can be transferred to the other photocopiers via the LAN board by using the pre-installed printer driver ..." (col. 8, lines 24-30). It would have been obvious to one skilled in the art at the time the invention was made to consider the second processing system 205 performs a majority of the image processing with the image processor in Yasuda since the second processing system 205 mainly process the received image data and transfers it to the printer 119 for printing or to other photocopiers 108-110.

Concerning claims 2-3, 13 the first processor system receives and transmits control data from the image source via the first bus; the printer is an ink jet and the second processor generates the image output in the form of the ink jet control signals.

Concerning claims 8-11, 18-21, Yasuda fails to teach that the processors perform at least one of the following functions as part of generating image output for the printer: print masking, registration correction, failed nozzle correction, printer calibration, image resizing, ink depletion, dithering. However, it was commonly known in the art that these functions could be done by a processor as part of generating image output for the printer. It would have been obvious to one skilled in the art at the time the invention was made to modifying the processors in Yasuda for the above correction as a matter of well known in the art since Yasuda also teaches different function such as color separation, color conversion, image enlargement, filtering, smoothing, edging, etc.

Claim 23 is method claim of apparatus claim 1. Claim 23 is rejected for the same rationales set forth for claim 1.

3. Claims 4-7, 12, 14-17, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda as applied to claims 1-3 above, and further in view of Clark (US Patent No. 5,899,604).

Concerning claims 4-7, 12, 14-17, 22, Yasuda fails to teach that the raster image processor is in circuit communication with a plurality of color plane processors wherein each of the color plane processors corresponding to one of a plurality of color planes of the image data and the RIP processor performs separation of the image data into at least cyan plane data, yellow plane data, magenta plane data, black plane data, light cyan plane data, light magenta plane data, to generate image output for the printer. Clark discloses a computer with an eight-plane RIP processor for forming black, yellow, magenta, cyan planes and light cyan, magenta, cyan planes and generating output image for printing (Figs. 2, 5; Abstract; col. 4, line 54 – col. 6, line 14). It

would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of Clark to the RIP processor in Yasuda since in Clark, it is a matter of well known in the prior art that a RIP processor performs separation of the image data into at least cyan, magenta, yellow, black plane data and light cyan, magenta, yellow plane data while the RIP processor in Yasuda and Clark can process color image data and generating an image output for printing.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Cyman et al (US Patent No. 6,236,463) discloses a system for generating high speed variable information including a plurality of raster image processors.

b. Clouthier (US Patent No. 6,778,291) teaches a printing system with RIP processor.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine AV Nguyen whose telephone number is 703 305-4860. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Madeleine AV Nguyen
Primary Examiner
Art Unit 2626

September 20, 2004